



## CARSWELL/PLANT 4 RESTORATION ADVISORY BOARD

Fact Sheet #18  
February 20, 2003

### NAS FORT WORTH JOINT RESERVE BASE INSTALLATION RESTORATION PROGRAM

This is the 18th in a series of fact sheets focusing on the Installation Restoration Program (IRP) at the Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB). The NAS Fort Worth JRB, formerly Carswell Air Force Base (AFB), is in the process of planning and conducting activities for the identification, remediation, and closure of contaminated sites at the base.

The IRP is the Department of Defense's (DoD) primary mechanism for environmental response actions on U.S. Air Force installations. IRP activities are governed by provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and other applicable federal and state regulations. These activities are being conducted through the combined efforts of the Air Force Center for Environmental Excellence (AFCEE) and the Air Force Real Property Agency (AFRPA). Under provisions of RCRA, the Air Force identified 68 solid waste management units (SWMU) and 20 areas of concern (AOC) at NAS Fort Worth JRB for further study and clean up, if necessary.

### CARSWELL ON-BASE

### RCRA FACILITY INVESTIGATION OF SOLID WASTE MANAGEMENT UNITS 49 AND 50

SWMUs 49 and 50 are former aircraft washing areas 1 and 2, respectively. The Final Work Plan for SWMU 50 was submitted to AFCEE in September 2000, and the first round of field work was conducted at this location in December 2000. Results from the December 2000 sampling event indicated that further soil sampling was necessary at SWMU 50. This soil sampling was conducted in June 2001. In addition, a groundwater investigation was conducted in July 2001 to determine to what extent, if any, groundwater has been impacted. Monitoring wells were installed, and the first round of groundwater sampling was conducted in July 2001 with subsequent rounds of sampling in September 2001 and November 2001. The results of the soil and groundwater investigation indicated that no contaminants exist that would significantly impact human health or the environment. Therefore, SWMU 50 was submitted for closure under Risk Reduction Standard (RRS) 2 in October 2002, and the Texas Commission on Environmental Quality (TCEQ) approved closure of SWMU 50 in January 2003.

The first round of soil and groundwater sampling activities at SWMU 49 was conducted in January 2002. Soil samples were collected from four locations surrounding the former aircraft washing area. One monitoring well was installed in the downgradient direction, and two rounds of groundwater sampling have been conducted. Based on the results of these sampling efforts, SWMU 49 required additional sampling that was conducted last month. Three additional monitoring wells were installed and sampled. These sampling data will be evaluated to determine if this site requires additional sampling, or if it can be submitted for closure. It is anticipated that SWMU 49 will be submitted for closure this summer.

### LIMITED RCRA FACILITY INVESTIGATION OF SOLID WASTE MANAGEMENT UNITS 54 AND 55

The Final Work Plans to conduct a limited RCRA Facility Investigation (RFI) were completed in September 2000 for the Storm Water Interceptors (SWMU 54) and the East Gate Oil/Water Separator (SWMU 55). Soil and sediment sampling was conducted for SWMUs 54 and 55 to determine if these units have released hazardous constituents to the environment. The first round of sampling was conducted in December 2000 with subsequent sampling in June 2001 and December 2001. Sampling results indicated that contaminated soil and sediment existed at both SWMUs 54 and 55. The contaminated soil and sediment will be removed before SWMUs 54 and 55 are submitted for closure. The sampling necessary prior to the removal action was initiated in November 2002, and continued last month.

### RCRA FACILITY INVESTIGATION OF LANDFILLS CONTINUES

RFIs continue at five former landfills, also referred to as SWMUs. These landfills include Landfill 7 (SWMU 17), Landfill 1 (SWMU 28), Landfill 2 (SWMU 29), Landfill 9 (SWMU 30), and Landfill 6 (SWMU 62). The results of the RFIs will determine if a source of potential contamination exists, and if the source has impacted the soil, groundwater, surface water, or sediments at or near each landfill. Work plans were prepared for the fourth phase of investigations at Landfills 1, 2, 6, 7, and 9, and field work was completed in February 2001. Additional sampling was conducted in June 2001. Based on evaluation of the data, interim remedial actions, also referred to as "hot spot removals", were necessary prior to the completion of the RFI for Landfills 2, 6, 7, and 9. These hot spot removals began in October 2001 and concluded in January 2002. A Final RFI Report recommending closure for Landfills 2, 6, 7, and 9 was submitted in September 2002. Landfill 1 will require additional sampling and hot spot removals to be conducted later this spring.

### WASTE ACCUMULATION AREA RCRA FACILITY INVESTIGATION

A RFI of 16 Waste Accumulation Areas (WAA) was completed in June 1999. Based on the results of the initial investigation, a RFI report recommending regulatory closure was prepared for 7 of the 16 WAAs, and closure was approved by the TCEQ in November 2000. A Phase II soil and groundwater investigation was performed on the remaining nine WAAs in May 2000. Based on the results of the Phase II investigation, a Final RFI Report recommending site closure was submitted to TCEQ for four additional sites in March 2001. The TCEQ granted closure of these four sites in June 2001. Additional investigations and/or remedial actions were required at the remaining five WAAs. Work plans for additional soil and groundwater sampling were submitted to AFCEE in January 2001, and the additional sampling was conducted at the remaining five sites in June 2001. Based on the results of the June 2001 sampling event, hot spot removals were necessary at three WAAs and began in October 2001. The hot spot removals were completed in January 2002, a RFI report was prepared, and closure was approved by the TCEQ in October 2002.

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## RCRA FACILITY INVESTIGATION OF SOLID WASTE MANAGEMENT UNITS 19, 20, AND 21 AND AREA OF CONCERN 19

The first round of field sampling activities was completed in May 2000 for RFIs of the following areas: former Fire Training Area No. 2 (SWMU 19), former aboveground waste fuel storage tank (SWMU 20), former underground storage tank (SWMU 21), and suspected former fire training area (AOC 19).

A geophysical survey was completed at SWMUs 19, 20, and 21 and AOC 19 in February 2001. Based on the results of this survey, several areas of buried metal were excavated, and additional soil sampling was conducted in August 2001. The geophysical anomalies were caused by buried scrap metal such as steel pipes, metal plates, wire, and road construction debris. Monitoring wells were installed at these sites in February 2001, and groundwater sampling was conducted in February, April, and June 2001. Additional rounds of groundwater sampling at SWMUs 19, 20, and 21 were conducted in October and December 2001. The Final Site Investigation (SI) Report for AOC 19 requesting closure was submitted to TCEQ, and closure of AOC 19 was approved in August 2002. A RFI Report currently is being prepared for SWMUs 19, 20, and 21 and will be submitted to AFCEE for review later this spring.

### AREA OF CONCERN 1

Additional sampling of groundwater at AOC 1, the Base Service/Gas Station, and the delineation of contaminants further downgradient of AOC 1 were requested by the TCEQ in January 2000. Groundwater sampling performed in monitoring wells installed off-base in May 2000 and July 2001 revealed the presence of fuel hydrocarbons in several of the off-base wells. The most recent sampling of the off-base wells occurred in April 2002. Surface water samples collected from the West Fork Trinity River during previous sampling events detected no fuel hydrocarbons downstream of AOC 1. Based on the groundwater results from samples collected from the off-base wells, the decision was made to install an interim remediation system. The purpose of the remediation system is to prevent any additional migration of fuel hydrocarbons beyond the base boundary and to remediate the fuel hydrocarbons present in the groundwater. The remediation system design was completed in coordination with the Navy. The Corrective Action Plan including the final remedial system design was approved by TCEQ in July 2002.

In accordance with the approved Corrective Action Plan, construction of the groundwater remediation system has been initiated at AOC 1. Construction activities began the week of January 20, 2003, with initial site preparations and the installation of the groundwater recovery wells. Construction of the treatment system and infrastructure began the first week of February 2003. Start up and operation of the system is expected to occur mid- to late-March 2003. Prior to the start up of the system, groundwater sampling will be performed in order to establish baseline analytical data.

### UNDERGROUND STORAGE TANK PROGRAM

The TCEQ requested additional information for underground storage tanks (UST) at Buildings 1040, 4115, and 4136 and a Ground Control Approach (GCA) site in order to complete the site review process. Additional groundwater monitoring wells were installed, and groundwater samples were collected to provide the additional information requested by the TCEQ. The TCEQ also issued a Leaking Petroleum Storage Tank number for the USTs at Building 1411 in February 2002. A risk assessment was completed for the site on April 15, 2002. The TCEQ requested additional groundwater information for this location based on the risk assessment. Groundwater samples were collected in July 2002. Per the TCEQ, groundwater samples also were collected in July 2002 for a Plan A risk assessment accomplished for former USTs located at Building

4210. A new monitoring well was installed at both Buildings 4210 and 1411 and sampled to provide additional groundwater data requested by the TCEQ.

A request to remove two Petroleum Storage Tank (PST) sites designated as GCA-1 and GCA-2 from the registration database was approved by the TCEQ in August 2002 and no further action is required. The Plan A Site Assessments for PST Sites 1411 and 4210 were submitted for AFCEE review and approval in November 2002. The Site Assessments were submitted to the TCEQ in December 2002. Additionally, release determination reports for PST Sites 1040, 1191, 4115, 1658, and 1750 were submitted to AFCEE for review and approval in December 2002. Upon AFCEE approval, the release determination reports will be submitted to the TCEQ. The Plan A Site Assessments and release determination reports all recommend no further action and site closure.

## RCRA FACILITY INVESTIGATION OF OIL/WATER SEPARATORS

RFIs conducted on 21 oil/water separator sites at NAS Fort Worth JRB have resulted in closure by the TCEQ. The most recent approval for 11 sites will soon be available for public comment. Public notices will be printed in the *Fort Worth Star Telegram* to solicit public comment. Supporting documentation for these sites can be found at the White Settlement Library or via the world wide web at [www.adminrec.com/arCarswell.htm](http://www.adminrec.com/arCarswell.htm).

## SOLID WASTE MANAGEMENT UNIT 64 STATUS UPDATE

SWMU 64, the French Underdrain System, was removed by excavation in October 2001. A closure report documenting the removal of the system was submitted to the TCEQ in August 2002, and closure was approved in December 2002. All contamination has been investigated and remediated to RRS 2 levels so that no contamination exists that would negatively impact human health or the environment. A public notice will be printed in the *Fort Worth Star Telegram* to solicit public comment. Supporting documentation for these sites can be found at the White Settlement Library or via the world wide web at [www.adminrec.com/arCarswell.htm](http://www.adminrec.com/arCarswell.htm).

CARSWELL OFF-BASE

## SANITARY SEWER SYSTEM RFI

Results from Phase II soil and groundwater sampling in March 2000 verified that most sections of the Sanitary Sewer may be recommended for closure. However, a Phase III RFI was required to complete confirmation and/or delineation of some contaminants at specific locations along the NAS sanitary sewer lines. The Phase III RFI began on February 14, 2001, and the sampling and analysis results indicate certain specific locations will require hot spot removals. Programming action to approve the removal of the hot spots is complete and is awaiting funding. The hot spot removals are scheduled to commence this spring.

## OFF-SITE WEAPON STORAGE AREA

All field work has been completed, and areas of previous excavation have been filled and regraded. The Draft Final Closure Report for Removal of Hazardous/Non-Hazardous Wastes was submitted to State and Federal regulators in September 2000 and approval for closure under RRS 2 was received on February 5, 2001. The Deed Certification also has been completed for the entire Weapon Storage Area (WSA) site. Final closure of three USTs, that were removed under the TCEQ PST Division regulations, was approved by TCEQ early last summer. The Finding of Suitability for Transfer (FOST) for the WSA was reviewed by the regulatory agencies and the U.S. Air Force. However, the AFRPA, formerly the Air Force Base Conversion Agency (AFBCA), decided in August 2002 to convert the Explosive Ordnance Disposal area of the WSA from an agricultural safety clearance certification to a residential safety clearance certification. This conversion will require approval by the Department of Defense Explosive Safety Board. Upon approval, the entire WSA can be transferred as a residential area. Programming is complete and the AFRPA is awaiting funding to accomplish this conversion. The conversion will take approximately 7 months.

## PROPERTY TRANSFERS

- Property transfer for the Kings Branch Housing Area was completed in October 2000.
- Property transfer for the Federal Bureau of Prisons was completed in December 2000.
- Property transfer for the Stables was completed August 2001.
- The FOST for the WSA is currently under review.
- The Finding of Suitability to Lease for Expansion of the Golf Course to include Landfill 6 was signed on October 5, 2001.

## RCRA PERMIT RENEWAL UPDATE

The RCRA permit for Carswell AFB, Texas, was signed by the TCEQ on May 2, 1990, and became effective February 7, 1991. The permit is required to be updated and renewed every 10 years. The permit renewal application was submitted to the TCEQ on February 1, 2001. The permit renewal with amendment is an institutional control to ensure Corrective Actions continue until all of the U.S. Air Force sites located both on NAS Fort Worth JRB and on the former Carswell AFB property off-base are closed. Currently, only sites located on NAS Fort Worth JRB remain open. The Final Permit was issued by the TCEQ on September 25, 2002, after the conclusion of the public comment period.

## GLOSSARY OF TERMS

**Area of Concern (AOC)** – an area identified as a potential environmental concern.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** – Also known as “Superfund,” this law was enacted in 1980 and requires the identification, investigation, and clean up of contaminated sites.

**Oil/Water Separator (OWS)** – an oil water separator is used to separate the oil from waste water. Oil water separators are used commonly with service stations, maintenance shops, and surface water drainage systems where surface water run off may collect oil drippings or small spills.

**Resource Conservation and Recovery Act (RCRA)** – a law enacted to identify active hazardous waste generating facilities, investigate past site contamination, and initiate cleanup and pollution prevention measures.

**RCRA Facility Investigation (RFI)** – an investigation of soil and groundwater contamination resulting from a release of contaminants from a storage unit regulated under RCRA.

**Risk Reduction Standard (RRS)** – a risk-based cleanup standard for soil and groundwater defined by the Texas Natural Resource Conservation Commission.

**Site Investigation (SI)** – a preliminary environmental study of a site possibly contaminated by an underground storage tank used for storing petroleum products such as gasoline or aviation fuels.

**Solid Waste Management Unit (SWMU)** – a defined area used for storage or disposal of hazardous wastes as defined by RCRA.

**Underground Storage Tank (UST)** – a tank installed beneath the ground surface used for storing liquids such as gasoline, aviation fuels, and waste oils.

**Waste Accumulation Area (WAA)** – a specified area used for temporary storage of hazardous wastes.

## FOR MORE INFORMATION

*If you would like more information, please see our web site at <http://www.afcee.brooks.af.mil/er/carswell/nasfw/rab/rab.htm> or contact the following individuals:*

**Carswell On-Base:** Michael Dodyk, HQ AFCEE, at (817) 782-7169 or via e-mail at [mike.dodyk@carswell.af.mil](mailto:mike.dodyk@carswell.af.mil) or Joe Ebert, HQ AFCEE, at (210) 536-4492 or via e-mail at [joseph.ebert@brooks.af.mil](mailto:joseph.ebert@brooks.af.mil)

**AFP 4:** George Walters, the Aeronautical Systems Center, Wright-Patterson Air Force Base, OH, at (937) 255-1988 or via e-mail at [george.walters@wpafb.af.mil](mailto:george.walters@wpafb.af.mil)

**Carswell Off-Base:** Charles Pringle, AFCEE ERB, at (210) 536-4477 or via e-mail at [charles.pringle@brooks.af.mil](mailto:charles.pringle@brooks.af.mil)